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Correspondence from practical farmers, giving the results of their experience, is solicited. Letters should be signed with the writer's real name, in full, which will be printed or not, as the writer may wish.

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Secretary Wilson's Report. Advance sheets of the report of the National Department of Agriculture indicate the rapid growth of American farming interests and of the department's work. Nearly one hundred distinct subjects are considered in the secretary's report.

Agricultural prosperity is stated to have become better distributed during the past dozen years, extending to all sections of the country. According to Secretary Wilson, "It is the farmers who have paid the foreign bondholders," since the favorable trade balance to the credit of this country is due entirely to farm products, the exports of which have gone far ahead of the imports, while other products have fallen behind. A combination of the domestic exports of forestry products with those of farm products gives a total constituting 47.3 per cent. of all domestic exports for 1902.

The secretary will be endorsed by the best agricultural sentiment of the land in his statement that the free-seed distribution does not accomplish the ends for which the law was framed. He believes the work should be limited to distribution of seeds and plants of new and rare varieties. The next step is to bring Congress to his way of thinking. Some of the congressmen seem to have the impression that their friends in the country are anxious for a certain bulk or weight of seeds, without much regard to kind or quality.

The department has been trying to secure new plants suitable for special locations or conditions. These include new wheats, oats, millets, a new alfalfa for the dry regions, new rice, flax, cotton, etc. Plants used in making various drugs are being tested with a view to finding out the cost of producing and preparing for market.

An important feature of the work is the investigation of American fruit exports. A special study has been made of the conditions affecting fruit marketing and storage, especially in connection with the export trade, and experimental shipments have been made in order to determine the suitability of the variety and the requirements of consumers. It has thus been demonstrated that the Bartlett pear can be successfully and profitably shipped across the Atlantic and sold at an advance over home prices. Elberta peaches and several varieties of summer apples from Delaware have been landed in London in prime condition. A notable event of the year was the inauguration of direct shipment of American winter apples to Paris from this department. The Russet varieties were found to have the preference.

Important work is reported from the soils laboratories, resulting in some very valuable discoveries, from which the chief of the Bureau of Soils argues that nearly all soils are amply supplied with the necessary mineral plant food; that their supply as regards the plant is determined by the supply of soil moisture the crop can obtain from the soil; that the chemical analysis of a soil cannot, therefore, in itself throw much light upon the problem of fertility, but in attempting to control the factors governing crop yield, attention must be specially directed to the chemical condition of the soil as affecting the supply of soil moisture with its dissolved mineral nutrients, to the effects of climate, to rotation, and to general soil management.

The San Jose scale, which is fast becoming a serious pest in the East, is being fought by distribution of insects which feed upon the scale. An interesting discovery of the Bureau of Forestry is the fact that the original cause of many large forest fires is the work of insects, which collect in the lumber and kill many trees, thus favoring the feeding of the fires. Considerable space is devoted to the work on silk culture, but it seems doubtful whether labor is cheap enough anywhere in this country to make the venture profitable.

been made for an increased number by the State Legislature. Schools are about to open in California and Massachusetts, and in the Report of the Association of the American Agricultural Colleges and Experiment Stations Secretary Wilson strongly recommends the introduction of courses in agriculture into the high schools. The department is now equipped with a farmers' institute specialist, and is preparing to render practical aid to the important work of farmers' institutes throughout the country. In commenting upon the work of the experiment stations, a striking feature is the suggestion that the Government should grant them more money to carry on new investigations in co-operation with the farmers, and to provide better equipment. This recommendation should be a popular one, as the stations have to a remarkable degree succeeded in obtaining the support and confidence of farmers.

The secretary's report is remarkable for scope, progressiveness and good sense. It tends to confirm the general impression that, on the whole, the national agricultural interests are under very good management indeed. Hardly any other department of the Government has been so directly and practically successful in its special line of work and new development.

A Cow to Every Acre. The Pines Dairy has been conducted as a dairy farm since 1887. At that time the farm consisted of thirty-five acres of clay loam intervalle land and fifty acres of hillside, upland pastures. For many years great efforts had been made to keep back the encroachments of the forest on this pasture. After much thought, the decision was made to solve the pasture problem by abandoning the pasture.

GIVING UP THE PASTURE. This step called for a radical change in the management of the intervalle. Previous to this time this land had been well fertilized with barn manure and unleached ashes, but was plowed only once in about ten years. A rough plan of the farm was drawn, and it was divided into five sections on this map.

A FIVE-YEAR ROTATION was then outlined, consisting of corn or potatoes, grain, grass and clover two years, pasture. The section longest in grass was plowed for the first crop in the rotation. The next section was taken for a pasture. It was at once found that great pains would have to be taken to make the farm manage over the seven years, about double the amount usually plowed. By the use of a manure spreader this was readily accomplished. We acted upon the supposition that five cords of manure per acre, applied once in five years, was fully equal to ten cords of manure applied once in ten years, and with the increased tillage given the land, and the fining of the manure and more thoroughly incorporating it with the soil, quite a material gain was made.

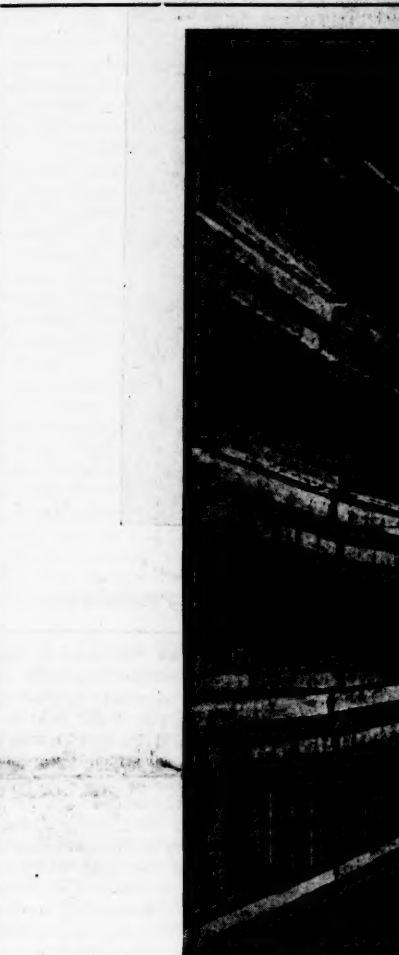
MORE FEED, MORE COWS, MORE MANURE. Our cows were fed a fair amount of grain winter and summer. Here we unexpectedly found a great saying. While using the hillside pasture, the summer manure nearly all went to foster and encourage the forest growth, or was washed into the brooks and low places. With the pasture in a portion of the field, supplemented by soiling crops and grain, this manure was all saved, and added materially to the amount and value of our year's supply of fertility.

It will be at once seen that our cows are at all times either on land that is to be plowed the following year or in the barn, where, with plenty of absorbent material and a tight basement, all manure is saved. After two years of this work we found the productive capacity of the farm so much increased that a silo was built and all surplus fodder corn and corn stover placed in it. By the saving in food value over drying and the affording of succulence, the silo became at once another great aid toward increasing our farm resources.

SUCCESS AND EXPANSION. This work went on till the year 1897, and that year we were able to carry, including the pasture, a mature animal to each acre of the farm. At the start we were carrying but one animal to three acres, with the pasture thrown in. We purchased no coarse fodders nor hired any pasturing, except possibly to provide for one or two dry cows for a short period, neither had any coarse fodder been purchased since the abandoning of the pasture. An opportunity presenting itself we then doubled the acreage of the farm, extending the same rotation over the new section, and trying to work up the larger acreage to the same capacity. In this we are succeeding fairly well, and today, instead of a barn 36x48 we have one 36x83, well filled with first quality hay, and two silos with a capacity of one hundred tons. We are farming fewer acres now than when we started.

This has been done without large outlay for grain or fertilizers, but through better tillage, more complete saving of the farm manures and their more frequent application and thorough fining and mixing with the soil. These are not all nor the best of the good results. Our boys have become interested; have been kept busy with congenial work, and instead of turning their attention to a life of service for others, have been content to work for themselves, to live under the parental roof, and to enjoy the developing of the soil and appreciate the results that spring from it. So far I have said nothing about disposing of the product, a very important matter.

time, but finally it was found that the extra labor required could ill be afforded from the regular duties of the farm, and we began selling cream to a creamery. This plan was followed till 1898, at which time an opportunity to establish a milk route presented itself, and since then we have sold milk to a first-class retail trade. We started with the idea that we would sell good, clean milk from healthy, clean, well-fed cows, that we would have everything about the business first class. This idea has been followed all along, and has brought good results. Believing that all customers deserved a clean, healthful product, we have never asked an extravagant price, but have kept the rates within the reach of all. We fully believe in the possibilities of Maine farming. We rejoice in the forward steps that are being taken along all lines, particularly in dairying, and we hope efforts



CHICKENS IN FATTENING COOPS.

to maintain the high standard for the products of our dairy herds, which they have sustained for a long time, may continue and meet with success. Let us all become aware that Maine, with her climate, her soil, her markets, her schools and her many social advantages, offers inducements to the intelligent hand and eye, to the trained mind and the energetic will that are unsurpassed anywhere.

B. WALKER MCKEEN. Oxford County, Me.

Active New York Farmers.

In Lewis County, for some time past, the people have been enjoying the sleighing, which has been sufficient to do business on runners. The greater portion of the present November has been quite snug winter weather. Twice during the month the mercury has reached zero. It is seldom in this section that we experience a much cooler November.

Our lumbermen intend to leave December for their winter's work in the great spruce forests where they have large contracts getting out of ordinary farm crops where most of the fertility is purchased in fertilizers. You must get it in a cheaper way. Of course I mean in the long run. You may make a single crop or more profitable. What your farm wants is, first, plenty of vegetable matter put into it, either before being fed to animals or after. Then, incidentally, get all the nitrogen you want (after a time) from the air by having the vegetable matter grown largely red clover, cow-peas or crimson clover. Then buy a little mineral matter, acid phosphate and muriate of potash, so long as it seems to be needed and pays, to use along with the vegetable matter put in soil.

In order to save buying so much potash, and also some nitrogen, put a cement floor in all stables and save all liquid manure. This is vitally important if you want to bring up your farm cheaply. It is evident from letters received that some do not understand what elements of fertility are found in the urine. And not long ago a good writer in a leading farm paper said the liquid should be saved because it is rich in potash and phosphoric acid. There is no phosphoric acid in it. It is all in the solid. Nearly all of the potash and a large part of the nitrogen that comes from animals in solid and liquid voiding is in the urine. When farms were rich and productive, had an abundance of all kinds of plant food, it was not so necessary to save the liquid, at least farmers usually would not pay much attention to the matter, as long as they did not particularly need it. Now, with farms run down and some fertility to buy, it is an important matter, and cement floors are being built by the hundred. Now remember, that it is of the utmost importance that you get your soil well supplied with humus and keep it so by growing crops on it to put back, either directly or in form of manure. Then a little fertilizer may help you greatly, far more than it would without this humus. The humus

sell when a good price is offered and the goods are wanted. P. E. WHITE. Lewis County, New York.

How to Bring up a Run-Down Farm.

C. J. Miller, Fennelton, Pa., writes that they purchased a farm last spring that is pretty well worked out and most of it covered with briars and weeds. The soil seems to be a dark, sandy loam, underlaid with slates. He asks whether they can make a good rich farm of this by using fertilizers. They sowed six quarts of clover seed and four of timothy per acre last spring and got a fairly good stand. Plenty of stock would be kept if they could raise enough feed for them. They have a good barn with earth floor and haul manure out daily, as there is no good place to store it. They can get plenty of lime readily. The general prin-

comes from the decaying vegetable and animal matter in the soil. Do not add too much at once, but keep at it regularly in your rotation. I am glad you would keep plenty of stock if feed could be raised for them, because that is the surest and safest way to bring your land up and keep it productive.

Grow forage crops, corn, hay, oats, etc., and feed them all out on cement floor, and buy wheat bran, linseed-oil meal, cottonseed meal, gluten feed, etc., to furnish protein to balance up your ration. This is the way for an Eastern farmer to buy fertility. Of course, with clover and cow-peas hay you will not need to purchase as much protein. On this sandy land keep something growing. Don't leave it bare during winter. Have live roots in soil and some growth of something on the surface. Put your manure out on sod ground to be plowed in the spring, as a rule. Don't plow it in fresh; it will get down fast enough on sandy land.

When you get considerable vegetable matter to plow in, in the shape of sod, a ripe crop of peas, or crimson clover, strawy manure, etc., you may safely use fifteen or twenty bushels of lime per acre after plowing. Spread it very evenly and harrow in. Remember that for best results every spot of soil as large as your hand should get some. This will probably help the following crop, used as indicated, and particularly the chances for getting a good growth of clover. I know there are some farmers in Pennsylvania who use one hundred to three hundred bushels of lime per acre and who will laugh at the above advice. Never mind; don't use more than about twenty bushels, and do not repeat for three or four years. Now I presume you will want to seed considerable of this land covered with weeds next spring, before you get it ready for thorough work, even if you do not get the best of results. I think I would try using fifteen bushels of lime per acre, very thorough tillage, light seeding of oats and plenty of clover and timothy seed.

Use one to 1 1/2 bushels of oats per acre, and a little fertilizer, such as does best on your land. In five to ten years you can make this land quite productive, and probably will not need to use much, if any, commercial fertilizer after that.

Farm Hints for December.

As the fall work is now nearly completed and all things in readiness for winter, farmers will have some time for rest and recreation, which generally is needed after the active season's labor.

There, however, will be the daily need of attention and care of the stock at the barn, and the more faithfully this work is performed, the more satisfactory will be the results be now and in the future. The winter season will be a good time in which to read, study, compare notes and plan for another year's work. Time thus expended should bring with it a good and sure reward.

FIELD AND GARDEN.

At intervals during the month the ground may be clear and frozen so that plowing can be made, and no hand will lay as well as the most distant field, thus saving time next spring. If draining wet land is to be done, the present is a good time. Wet places are frozen but little, and the soil is dry for the season. Plots of rhubarb, asparagus, spinach, kale, should be covered with litter and coarse manure. Celery standing in trenches should be covered with litter to prevent freezing. Some of the parsnips should be dug before the ground freezes to stay, and be packed in sand in the cellar. Said packing will keep other vegetables plump and crisp, including turnips, beets, carrots, salsify, horseradish.

THE POULTRY YARD.

If the early pullets fail to start laying during some of these warm spells, the chances are that they lack animal food. An egg is mostly meat. The nature of the fowl is largely meat, and no hen will lay as well as she ought unless she has milk or some kind of meat food. The trouble is that many farmers will buy a few pounds of beef scraps, feed it out a handful or so to a large flock every few days, perhaps, and then conclude that it doesn't amount to anything. Meat is a food not a medicine. It is nearly all just the right material for egg making. Get it by the bag or the ton the same as grain, and use plenty of it. A quart in a large palful of dough is none too much. If there is plenty of skim milk to wet up the soft feed not much meat will be needed. Dried blood and fresh-out bone are also good forms of animal food.

Hens do not mind cold days if there is dry litter in which to exercise. But they must be warm by night, or the first severe cold snap will shut off the eggs. A snug, tight roosting-room pays. Warmth at night is more important than ventilation. Evergreen boughs hanging close over the roosts help the birds keep warm. Large flocks keep warmer than small ones. This last point is not commonly appreciated, but there are very successful winter egg producers who crowd from thirty to one hundred fowls into a small house at night, giving them wide range by day and obtaining plenty of eggs when prices are high.

Those who intend to raise early winter broilers should be getting ready. The best prices are obtained during March, April and May, and the chickens to be ready for market must be out before long. Incubators are started early in December. Chickens hatched the first of January should be worth thirty or forty cents a pound in the first part of April. Eggs will hatch well at this time of year. The main trouble is to get the early pullets to laying so that enough eggs can be had to fill the machines. The scarcity of eggs at this time will probably reduce the hatch and result in extra high prices next March and April.

It will cost about fifty cents to winter

each male bird. Hence, very few should be kept. Even pure-bred birds, not needed for use or that will not sell for at least \$1.00 by early spring, should be culled out. Surplus cockerels should be kept by themselves. They will not fight much if used to running together and kept out of sight of the pullets.

ODD JOBS.

Pastures, fence rows and borders of streams may be cleared of brush growth. Muck can be dug and left on the edge of the swamp to dry and weather. Do repairing, shingling and painting when weather permits. Study convenience in the barn and set up carriers for hay, manure and silage, and chutes for hay and grain. Make rat-tight grain bins if needed. Have plenty of forks, shovels, measures, brooms, brushes, curry combs, etc., for barn use, and a good place to keep them. Put the harnesses in good order; repair and sharpen tools; sort winter fruit; draw off and mix older to hasten vinegar-making; study farm papers and books, and plan a better system for the farm operations.

Health for Elderly People.

If you are along in years, all the more need of guarding your health, writes T. B. Terry, in the Practical Farmer. But now, do not infer that the less of your strength you use the better. No, that is about as bad as overdoing. One should not work to actual exhaustion, neither should he stop very much short of it for the very best results. Use of muscles and brain is the law of life. And the more use, within the limit of our daily supply of strength, the better the health and the longer the life. This is a necessity, if one wishes to retard the coming of the infirmities of old age.

Our farmer friends, as a rule, work hard enough. They need only to be cautioned against overworking. And this more particularly after they have reached the age of fifty or sixty years. They should continue to work then, but let younger hands do some of the heavier jobs. They should keep as busy as ever, but gradually arrange to have the work of a lighter and lighter character. And by all means use the brains as well as the muscles, so you can continue to have a sound mind as well as a sound body. A weakening of the brain power, loss of memory, etc., is almost a living death. It can be prevented to a considerable extent by proper use. The carpenter who helped me a month last summer is seventy-three years old. He is as spry as any boy and can do as much in a day as ever, except at heavy work. He lives 2 1/2 miles away, but was here every morning by six-twenty. One could say their clock by him. He told me he had thought of giving up work when he was seventy-five. I urged him not to do it, but to keep right on, being a little more moderate and avoiding heavy work. The proper way would be for him to keep a young, strong man to work with him to do the lifting and straining work. I would give the same advice to farmers who are getting old. Some four years ago our family physician insisted that I must not go to any institutes, and so did our folks and all our friends. But I took the bit in my teeth and went. They had little hope of seeing me come back alive. I went where I could stand what would be expected of me. I cut down on what would be required of my strength decidedly, but kept at my work. I came back better and am quite well and strong now. And now listen: Our good doctor told me the other day that I was right in not dropping my work and to keep at it, only be careful to not overdo. I pass it on to all of you. I know it is right. I know it means longer life and more enjoyment while you live, particularly the latter. What is longer life when one is made wretched by the infirmities of old age?

Do not move to town, friends, when you are fifty or sixty years old, or seventy, or soon as you are financially able. The chance to comparative idleness will soon make life more or less of a burden. It will surely hasten the infirmities of age. Keeping busy, daily, within your strength, will help retard them. Let up gradually, doing just what you safely can and hold your own, but do not stop. If you do not need to work longer, as far as income is concerned, work to help others, making your life a blessing to as many as you can.

I have told you of one of my aged friends who has never stopped work and who is well and enjoys life. I could tell you of others about the same age who stopped work ten or fifteen years ago, and who are far from being as well. They can talk about their infirmities by the hour. But they do not realize that they are simply reaping as they sowed; that their troubles could have been put off and almost prevented by an active, useful life, with due attention to moderation in all things. Suddenly quitting work will usually bring on old age troubles with a rush. A gradual letting up, but still always using mind and body, within your strength, breathing pure air night and day, and avoiding excesses of all kinds, will retard the coming of the infirmities of old age.

Corn or Oats for the North.

We have had two cold wet seasons. Corn has failed in many cases, while oats have yielded bountifully. Now the question arises, why plant corn? Oats are the better crop to feed, and a more economical crop to grow in every way.

Corn alone is an unprofitable food, while oats alone form a nearly balanced ration. Should any season prove too late for oats, barley may be sown as late as July 1 and make a profitable crop. Corn may be king in the South, but in my opinion the farmers of Maine had better stick to the harder oats and barley. S. A. SHAW. Auburn, Me.

Dairy.

During a Milk Famine.

The storm that cut off for thirty-six hours the milk supply of New York undoubtedly caused some suffering, notwithstanding the fact that the market contained a big supply of many varieties of condensed milk. It appears that for reasons best known to themselves, some infants have an unreasonable, objection to the condensed substitutes for fresh milk. It appears also that so far as preserving fresh milk and cream goes, cold-storage warehouses might just as well be out of commission.

In an emergency they have no milk to hand out. As a milk dealer explained to a representative of the New York Sun:

"There is no use in trying to cold-store milk, for the reason that it always takes any sort of favor that is going and is apt to have an unpleasant taste the second day. By the third day it tastes almost like some other fluid, even though it is not sour."

"Even if frozen stiff and then thawed out, milk has an unnatural taste and most people are afraid of it. Retail dealers can occasionally in cool weather keep milk sweet for forty-eight hours in their own ice boxes, but that is why occasionally, in an emergency, one dealer will be able to furnish a scant supply of milk on the second day where another will not have a spare drop."

"And, curiously enough, the man that does it stands a good chance of getting a lot of new customers. Why? Well, because women are unreasonable sometimes—especially women with babies—and they won't believe that if one milkman has milk to retail, all the others could not have it too, if they had a mind to. As a reward of supposed merit they promptly transfer their patronage to the one who was lucky enough to have surplus."

"During the last storm I not only lost nearly two days' milk sales, but several customers besides, who were mad because I couldn't supply them, and so went elsewhere. Pretty soon, though, I shall probably get in their place some others who have left their dealers for the same reason. In the shuffle that takes place every year we generally come out even."

"No, as a rule, the farmers don't lose by the tieups, unless it is a few who deliver milk to the railroads themselves. The majority of New York retailers contract by the year for so much milk at a certain price, which the farmer is to get to a central station, which in turn gets it to the cars."

"Nearly every central station has a creamery attached to keep stalled milk from going to waste, by turning it into butter; and every station, I can tell you, has to hustle."

"Few people have the least idea of how much milk New Yorkers consume in a single day. Here, for instance, are the official figures for the month of September, 1903: These give a daily average of 30,548 cans, or 1,221,920 quarts, of milk, and 10,609 cans of cream and fresh condensed milk, or 42,436 quarts, making in all a total of 1,264,329 quarts of milk and cream which come in by twelve different lines of railroads every morning."

"Even if one railroad is tied up for a few hours, it is bound to make a lot of trouble for some dealers and their customers; and a general tieup—which, thank goodness, seldom happens—is a serious matter."

All this makes clear one fact at least—that New York must continue to live from hand to mouth, so far as fresh milk is concerned. Fortunately, in regard to other food staples the situation is less precarious."

Tuberculosis in Vermont Herds.
It is quite a good many years ago now since the discovery of this disease in cattle by means of the tuberculin test. At first it created a good deal of interest and some excitement at the developments made, and there was much discussion at farmers' meetings and elsewhere as to the reliability of these tests, as well as to what it would lead to if the herds were generally tested and the animals slaughtered wherever there were indications of disease as determined by the tests.

But the people are getting more used to this condition of things. Along with a better understanding of the matter, many admit the necessity and advisability of going ahead in the effort for exterminating the disease so far as possible, wherever there is reason to suppose it is located.

This work is going steadily forward in the State. At first it was under the direction of the Board of Agriculture, but later by a commission to whom the work has been entrusted. During this time many herds have been tested in different parts of the State and commendable progress made.

Not only are suspected herds subjected to the test, but some cattle owners, for their own protection and benefit, have had their animals tested, in order that they might be able to present a clean bill of health, or freedom from the disease. I think there are not so many infected herds found as was the case a few years since, which, if correct, would indicate that there is less of the disease.

Lately there have been indications of the disease in two large herds not far apart in one of the towns in Franklin County. In one herd of one hundred animals, all Jerseys or grades, the result of the test showed that twenty-two animals were affected. These were condemned and slaughtered. In some of the animals the disease was very pronounced, while in others it was only in its incipient stages, and hardly discernible to unpracticed eyes; but, as the owner said, the germs were at present only waiting favorable conditions for development and deadly work.

One thing as noted was remarkable, there being none of registered foundation stock that responded to the test, and not one of the animals under three years old.

In the other herd, out of seventy cows, thirty-one were found to be diseased. Here there was only one under three years old that had contracted the disease. In this herd there was one cow that was badly diseased, along with three of her daughters. Was this a case of heredity?

The owner of the first herd has a creamery, where his own milk is separated and also that from quite a number of patrons. Of course the skimmed milk goes into the vats together. Some suggested, at first, after the testing—that the milk from the affected cows would contain the germs, and, as a consequence, it would most likely be communicated to other herds from the feeding of the milk to calves. The immunity from the disease of the animals under three years old would seem to indicate that it was not being communicated through feeding of milk to the calves, hence it would seem to show that the milk was not contaminated, at least in these cases. One reason that induced the owner to have his herd tested was the fact that having a creamery patronized by others, there might

be a possibility of danger to other herds from this source, and he wished to be clear in the matter. This is certainly commendable, and it may be expected that the business will be followed up until there are no traces of the disease remaining.

It would be interesting to know if there are any other cases similar to these on record where the young animals were so generally free from this disease when once in a herd. If such is the case, an advantage might be conferred on cattle owners if the facts were made known through this paper. Some other farmers, knowing the cases here described, seem inclined to subject their herds to the tuberculin test, so there may be further developments by and by.

The only sure way to get rid of this disease would appear to be to have all of the cattle examined or tested, but this would be a long and costly job, but perhaps cheaper in the end. Perhaps in some localities there would be no indication of the disease, and if not, great care should be observed in purchasing any other than tested animals where wanted. Attention to sanitary measures should also receive careful attention, as preventives of this or other diseases.

Franklin County, Vt. E. R. TOWLE.

Agricultural.

Butter and Cheese Situation.

The butter market is in a satisfactory condition, with demand good and supply of fresh made coming in moderately or lightly. Were it not for the large stock in cold storage prices might be expected to go considerably higher. Every advance, however, brings out big lots of storage butter, which is selling readily at present quotations. Top price for fresh fancy creamery is 24 cents, or a fraction higher for extra fancy lots or small sales. These choice grades are, of course, above full competition with held goods, and have felt the force of the advancing tendency of the market. A rise in the lower grades of fresh made has been for the most part checked by the abundance and good quality of cold-stored butter. Box and print goods bring about one cent above the corresponding grades in tubs.

At New York conditions are quite favorable to the selling interest. Fresh supplies are very light, the weather is cool, and there is a pretty good trade in progress. Of fancy fresh creamery the supply is particularly short, and there is a firm feeling on the basis of 25 to 25½ cents, the outside figure for high scoring lots. A good many buyers are not satisfied with qualities that score about ninety-one points, and they are paying a premium of one-quarter to one-half of a cent for such goods that meet their requirements. It is true that the proportion of these high grade butters are very light, but enough stock comes forward to merit some recognition in the quotation. The great bulk of the fresh butter is more or less defective in quality, and leaving fancy there is another certain value. The business doing, however, is about in line with quotations. Storage creamery has a larger distributing trade, and there is a little speculative buying, or rather buyers are taking on stock in anticipation of future. No change in New York State dairy; receipts and demands are both light.

Chapin & Adams: "Butter is higher owing to falling off in receipts, which is a usual condition at this time of year. The market is likely to be firm for some time, but the excess of forty thousand pounds of stored butter over the amount last year at this time, will tend to prevent high prices. Consumption is large, owing to reasonable prices, and fresh receipts are likely to find a market promptly."

The Boston cheese market shows no special change. Supplies continue large and the demand only moderate. Such changes as have occurred are on the down side. Much of the late-made stock is rather poor and sells considerably below the market of early fall. The general market at New York continues to present a quiet appearance. Holders of fancy September-made full cream are fully as firm in their views on the basis of 12 cents for both large and small sizes, but anything showing slight defects would be shaded a fraction. Late-made cheese, however, continues neglected, and with fairly liberal supplies and stock accumulating the feeling is weak. Stock showing marked late-made defects is of uncertain value. Shippers continue quiet; exporters are taking a few, but home trade is showing very little interest in skim.

A New York dealer, an excellent judge of cheese, says: "In examining cheese we very frequently come across fruity flavors. Some call it sweet. I think fruity is a much better term. In examining cheese in Montreal I have found pineapple and strawberry and a sort of sweet elder flavors. The fruity flavors are objected to very much on the other side, and militate greatly against the sale of the cheese. An off-flavored cheese will sometimes sell, because the buyer thinks it is an apple cheese, but we want you to make clean, good cheese. From a mercantile standpoint fruity flavors are the most dangerous we buyers have to fight against. I find we get more fruity-flavored cheese from Quebec and New York State. Many of our buyers can tell a cheese that has a fruity flavor by the way the iron will go into the cheese. If proper care is taken of the utensils in which you get the milk I do not think you will have much trouble with fruity flavors."

Receipts at Boston for the month of November were 3,383,900 pounds butter, 25,447 boxes of cheese, besides 4791 boxes for export and 55,817 cases of eggs. For November of last year the figures were 2,564,282 pounds of butter, 17,546 boxes of cheese, besides 3910 boxes of cheese for export and 48,730 cases of eggs. Butter exports from Boston for the month were 227,230 pounds, against 149,594 pounds for the same month last year. Stock of butter and eggs in Quincy Market Cold Storage Company, Nov. 28: Butter, 190,880 packages; last year, 189,331 packages; eggs, 73,221 cases; last year, 106,314 cases. In Eastern Cold Storage Company: Butter, 33,350 packages; last year, 40,346 packages; eggs, 1846 cases; last year, 7739 cases.

Thorough Methods.

We must cultivate our orchards. We must also breed such stock as pay the best. We must get into the collar and work to a better advantage. I used to think that it was better to plow more, and still think that the correct thing. If you have a big field and expect to plow it over in the old style of cultivation, it will be twenty years before you can complete the job.

I am now working on a new theory. I seed the ground in corn instead of grain. It is a better plan. If you get your ground in good condition it will stay longer and yield better. If I want cream I must breed the Jersey and the Guernsey, but when I get through with them they are worthless. The market now calls for the Holstein and the Durham. They are the coming cows.—S. M. Bean, Waldo County, Me.

Firm Wool Markets.

The shipments of wool from Boston to date from Dec. 31, 1903, are 212,344,039 pounds, against 220,205,235 pounds at the same date last year. The receipts to date are 262,438,368 pounds, against 226,250,471 pounds for the same period last year. The decline of five to ten per cent. in prices, largely of crossbreds at the London auction sales, opening last Tuesday, has had only a sentimental effect upon the Boston wool market. Holders are no less confident of the position of domestic wool than before the sales began. The statistical position is strong, with many grades scarce and no great pressure to sell those that are in full supply.

Literature.

Dear, delightful Colonel Carter. We owe F. Hopkinson Smith a vote of thanks for introducing him to us again. He is the same old chivalrous colonel, kind and noble, with becoming dignity, but somewhat inexperienced in the ways of the world. We commence the book with great expectations and we are not disappointed as chapter follows chapter and we reach the end all too soon. We find the colonel at swords point with one P. A. Klutchev, an unscrupulous money lender. Not only are they at odds with each other, but the trouble is complicated by events affecting

ments, particularly during the civil war. Young Porter came from good old Massachusetts stock which had followed the sea for generations, and although born inland in Pennsylvania, we find him at an early age in the Mexican service, even before he became a midshipman in the United States Navy.

During the Mexican War he was conspicuous in the engagement of Vera Cruz. He was about to retire from the service and enter on a career in private life when the civil war broke out. For a time his fame was obscured by that of Farragut and other superior officers, although Porter played a conspicuous part in the New Orleans expedition. In fact he originated the plan and devised the means, but Farragut was commander-in-chief and receives the major share of the glory. His great opportunity came, however, when he was chosen to command in Mississippi squadron by President Lincoln.

He accomplished even more than some of his sanguine supporters anticipated in the eventful years which followed. We have here in the chapters entitled "The Mississippi Squadron," "Flanking Operations in the Yazoo Delta," "The Final Campaign Around Vicksburg," "The Red River Expedition" and "Port Fisher," a detailed account of Porter's achievements, but it was not until the fall of Fort Fisher that he attained a secure place in popular esteem.

During Grant's administration Admiral

know what to expect of the poet. There, South Africa, the Boer War or Tommy Atkins is the theme which inspires him, and of strife we hear not a little.

All will recall the sensation which his poem, "The Islanders," made when published. In it he lashed his fellow Britons for their unpreparedness for the Boer War, saying among other things of England:

"And ye vaunted your fathomless power, and ye flaunted your iron pride, Ere—ye fawned on the Younger Nations for the men who could shoot and ride! Then ye returned to your trinkets; then ye contented your souls,

With the fuddled fools at the wicket or the muddled oafs at the goals."

But after all it is the "Recessional" which brings the book to a close, which will be remembered when most of the jingo poems are forgotten.

"God of our fathers, known of old, Lord of our far-flung battle-line, Beneath whose awful Hand we hold Dominion over palm and pine— Lord God of Hosts, be with us yet, Lest we forget—lest we forget."

Kipling's mature work only adds to his reputation as a poet. His energy, skill and genius were never better displayed than in this book. [New York: Doubleday, Page & Co. Price, \$1.40 net.]

The sub-title to this book, "Wild Animals of the Plains I Have Known," suggests Ernest Thompson Seton's well-known book, but Ruth A. Cook tells her own stories in her own way, and there is nothing improbable to lead the readers to suspect that she is romancing, after the alleged method of a certain school of nature writers. Miss Cook was brought up on the Western plains, and there she gained her intimate knowledge of the animals she writes of so entertainingly. Girl-like she made a pet of a coyote, and the story of "Bruno," as the coyote was called, forms the first of a series of interesting sketches, which display sympathetic insight into the lives of wild animals without undue sentimentality. The author was greatly attached to Bruno in her younger days, and the story of her experience with her wild pet is a natural one. Yet now the animal's skin ornaments her library floor, and she apparently loves the skin as she did the live animal. Of the other stories in the book, "Sam Dempster and the Prairie-Dog Town" gives us an insight into the habits of the prairie dog. Then there are stories about buffaloes, muskrats, beavers, sopers, field mice and other animals which she came in contact with during her younger days in the West. They are all pleasant, agreeable stories, and will be read with avidity by that numerous class known as "nature-lovers." They do not, however, rise to the level of the works of many of the better known animal and nature writers. The illustrations by Mabel Williams are appropriate. [New York: James Potts. Price, \$1.25 net.]

Arthur Morrison is so well known as the author of "Tales from Mean Streets," that we take up this latest book which he has written with eager anticipation. A perusal of the opening chapters suggests Conan Doyle's "Sherlock Holmes," and the lover of detective story will be thrilled by the succession of incidents. The central character is Martin Hewitt, a Sherlock Holmes 2d, and although he does live up to the reputation of the original, he possesses no mean ability. The book derives its name from a mysterious red triangle first found pointed on the forehead of a murdered diamond thief, and when the reader's interest is once whetted, he will read this series of adventures with increasing interest. Martin Hewitt differs in one respect from Dr. Doyle's character, he works to a greater extent in conjunction with the police, something that Sherlock Holmes would have scorned to do. There is a "Dr. Watson" in the book too, in the person of Brett, who tells the story. It is, of course, to the book's disadvantage to compare it with Conan Doyle's masterpiece, for it would indeed have been remarkable if even Mr. Morrison could have secured an audience as large and as enthusiastic as that of his fellow countryman's. As detective stories go, "The Red Triangle," is one of the best, and those who delight in mystery tales—and who does not?—will find ample entertainment in this book.

Mr. Morrison expresses his views on hypnotism before he reaches the end, and he utters a warning to innocent people who allow themselves to be made a subject of hypnotic experiments in the hands of persons with whom they are not thoroughly acquainted. The practice of hypnotism is so dangerous, he says, that two eminent men of science have been led to issue a public protest and warning, with an urgent plea that the practice of hypnotism be restricted by law at least as closely as that of vivisection. But the story of the red triangle is the thing, and the interest in the mystery increases as the reader proceeds. (Boston: L. C. Page & Co. Price, \$1.50.)

"Three Hundred Things a Bright Girl Can Do," by Lilla Elizabeth Kelley, has a title that is self-explanatory, and the book, which is fully illustrated, covers the subjects selected for amplification in a clear and explicit manner, that will leave no doubt in the minds of those who wish to follow its instructions. The industry shown in the preparation of this book should entitle it to the consideration of both old and young. It is attractive looking and is well adapted to meet a useful holiday demand. (Boston: Dana Estes & Co. Price, \$1.20.)



"THE BATTLE OF BUNKERHILL." From "Brother Jonathan," by Heskiah Butterworth. Published by D. Appleton & Co.

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Buy your stock from the old reliable herd that has produced more prize-winners in the past 19 years than any other herd in the United States.
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Eight fall of 1902 farrow, 42 of spring of 1903 farrow. Heavy bone, extra quality. Breeding most satisfactory. Pairs and trios not for sale. Extra yearling Shropshire ram lambs.
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A fine lot of March pigs. Pairs and trios not sold. Write to:
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All ages for sale.
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Fall and spring pigs, either sex, from leading prize-winning herds. Pouches furnished.
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Best of breeding; all ages; extra large but smooth weight 200 pounds at six months.
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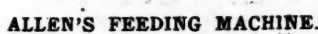
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17,334 Tons of Poultry.

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See descriptive article.

Winter Bulb Culture.

Apples Lower In Europe.

A Boston firm of exporters reports that the price of the product in Boston is as low as \$1 to \$1.50.

Vegetables and Fruit.

cases are being shipped to New York by Boston dealers and large growers.

Apple Trade Dull.

Dairy Don'ts.

—The Vermont State Grange holds its thirty-second annual session at Rutland, Vt., Dec. 9, 10 and 11. The day sessions of Wednesday will be occupied with reports and official business. The

—The trade relations between the United States and Cuba, present and past, are the subject of a document just issued by the Department of Commerce and Labor through its Bureau of Statistics. The United States imports from Cuba have always exceeded in value the United States exports to Cuba. This fact has been due, not to a lack of appreciation of United States products and merchandise on the part of the Cubans, nor yet to a lack of purchasing power on

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RADWAY'S READY RELIEF FOR PAIN

DYSENTERY, DIARRHOEA, CHOLERA MORBUS.

Radway's Ready Relief taken in water will, in a few minutes, cure Cramps, Spasms, Sour Stomach, Nausea, Vomiting, Headache, Painful Stomach, Nervousness, Sleeplessness, Sick Headache, Flatulency and all internal pains.

There is not a remedial agent in the world that will cure fever and ague and all other malarious ailments and other fevers, aided by RADWAY'S PILLS, so quickly as RADWAY'S READY RELIEF, sold by druggists.

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Poetry.

MY LOVE.

(Air "Robin Adair.")

Dearest each day to me,
Dearest to me,
Doth my beloved grow;
No one as he
Can ever so perfect seem.
He is my only dream,
He is my only dream,
My only dream.

Never were eyes like his,
Beaming with love,
Bright as the dawning sun,
Soft as the dove.
Speaking of thoughts untold,
Sweet as in days of old,
Sweet as in days of old.

Love beamed from his gaze,
Love all for me,
Oh! how I do adore
And worship thee.
My heart shall e'er be thine,
For thee my life I'll give,
Thou ever wilt be mine,
Thou wilt be mine.

No one can ever part
My heart from thee,
Even though thou cease to love,
My love shall be
Still fond and true to thee,
Ever my love, for thee,
Ever for thee.

MARTHA SHEPARD LIPPINCOTT.
Moorestown, N. J.

WINGS OF A DOVE.

At sunset, when the rosy light was dying,
Far down the pathway of the West,
I saw a lonely dove in silence flying
To be at rest.

Pilgrim of air, I cried, could I but borrow
Thy wandering wings, thy freedom blest,
I'd fly away from every careful sorrow
And find my rest.

But when the dusk a filmy veil was weaving,
Back came the dove to seek her nest,
Deep in the forest where her mate was grieving—
There was true rest.

Peace, heart of mine! no longer sigh to wander;
Lose not thy life in fruitless quest,
There are no happy islands yonder;
Come home and rest.

—Henry van Dyke.

THE OTHER SIDE.

Climbing the mountain's shaggy crest,
I wondered much what sight would greet
My eager gaze when'er my feet
Upon the topmost height would rest.

The other side was all unknown!
But, as I slowly toiled along,
Sweeter to me than any song
My dream of visions to be shown.

Meanwhile the mountain shrubs distilled
Their sweetness all along my way,
And the delicious summer day
My heart with rapture overfilled.

At length the topmost height was gained;
The other side was full in view;
My dreams—not one of them was true,
But better far had I attained.

For far and wide on either hand
There stretched a valley broad and fair,
With greenness flashing everywhere—
A pleasant, smiling, homelike land.

Who knows, I thought, but 'twere prove
Upon that mountain-top of death,
Where we shall find diviner breath,
And see the long-drawn friends we love.

It may not be as we have dreamed,
Not half so awful, strange and grand;
A quiet, peaceful, homelike land,
Better than all our visions gleamed.

But now along our upward way
What beauties lurk, what splendors glow!
Whatever shall be, this we know
Is better than our lips can say.

—John White Chadwick.

WOMAN'S WORK.

To wash and bake, to sweep and make,
The steps of weary toil to take,
To cook and scour, to dust and sweep,
And all the house in order keep.

To rise at morn and o'er and o'er
Do duties that in tomorrow's train
The same old tasks will come again
And often to herself to say:

"From dawn of day till setting sun
Woman's work is never done."
To watch and pray, to gladly take
Love's crosses for love's crowning sake,

To joy and grieve, to smile and weep,
Her deepest thought in silence keep,
To teach and lead, to hope and trust,
To teach and lead, to hope and trust,

To gently chide, to cheer and bless,
And bear with patient tenderness
Her burdens all, not shrink away,
To bravely look ahead and say—
"From dawn of life till setting sun
Woman's work is never done."

THE LOVERS.

The sky above was tender blue
And golden was the weather;
We went down a path a footish two
And strolling on a footish two.

His hand in his was tight
And his hand in his was tight
His hand in his was tight
And his hand in his was tight.

"How silly!" laughed the grass and breeze—
"How silly!" laughed the grass and breeze—
"How silly!" laughed the grass and breeze—
"How silly!" laughed the grass and breeze—

"How silly!" quoth we all, in flibe—
"How silly!" quoth we all, in flibe—
"How silly!" quoth we all, in flibe—
"How silly!" quoth we all, in flibe—

—Balam Smart Set.

Conchitt's Cautious Balsam All That
It Is Claimed to Be.

STAMFORD, CT., Oct. 1, 1902.
The Lawrence-Williams Company, Cleveland, O.:
I have used Conchitt's Cautious Balsam for
some time for many complaints and always found
it all that you claim for it.

WILLIAM F. PEEBLES.

Miscellaneous.

The Bachelor Cousin.

"Mandy, he's coming again this year the same
as before. About how many years has Cousin
Jim been coming here to stay the summer?"
"Twenty, counting the last stop—which was
from May until November; really, that makes
twenty and a half times your cousin Jim has
visited us. He began early and stayed late the
last time, you know. What has Jim Foudry got to
say this time, Silas?"

"Same old thing, Mandy; same old thing. Jim
never changes his own ways or his feelings,
and tells about how he longs to get out of the
nooks and corners of the farm once more.
Speaks in a fetching sort of way about the old
swimming hole down under the willows; also
grips me tighter than a burr about the fishing
place below the mill dam, where he once yanked
out a four-pound pike with a minnow hook.
Jim's got the same old gift of drawing folks to
him that he always had. Poor old boy! He
has not changed a bit since he went to the city
to build up a fortune. He's cut out for a bachelor,
and will always be the same. If he were
married, and was going to bring along a naughty
wife and a lot of fresh and saucy children I'd
think different about his coming here year after
year. The poor, lonesome, old boy clings to the
place if he has got barrels of money. I can't say
as he throws his wealth around when he does come."

"Only pays ordinary price for board, that's
all and no more. I will say this about Cousin
Jim—he never finds any fault with things; he
never complains, never says a word, they're all
the same to him. He really seems to enjoy plain
fare the best, and always tells me not to fuss
with fancy dishes. He crawls up the narrow
stairs to the little chamber without a murmur.
Some rich old bachelors who live most of the
year in high-toned hotels and fashionable board-
ing-houses would find lots of fault. He don't;
he's common like, and easy to please; just
likes to take off his coat and loaf around;
hangs on the fence as though he was watching
the grass grow; loves to sit on the stoop in the
evening like any poor man listening to the
tree toads and frogs. Silas, your cousin
Jim is never risen a peg above you if he has
got barrels of money. Poor Jim! I saw he was
sitting when he was here the last time. Perhaps
that was the reason why he came so early and
stayed so long."

"I don't like to write and tell him that crops
look poor, and that we are a little pinched, and
don't really care for company this year."
"Don't you do it, Silas; don't you do it. Why,
that would be cruel and wrong; and it would
break the poor old bachelor's heart. You are
the only one who has got left of the old stock in
these parts; the rest are all gone to the city.
Silas, Cousin Jim just pines for the sight of your
face, and the old place where you and he were
boys together. It is like a heaven to him to get
back here with you and the dear old familiar
faces he loves so much. Now you sit right down
and tell him we will be tickled to see him
again. Tell him the apple tree limbs are
bumping up against the window of the little
chamber; tell him the grass is greener than ever,
and that the snowball bush hangs heavy, and that
the roses are lovely so sweet. You might tell
him that my last churning was the best I ever
turned out since we got the new cows. Mention
a word about my raised bi-cuits and say a little
something about the bees and the nice honey.
It will come like a breath from the old sweet
time when poor Cousin Jim read all that. He
will hardly be able to wait, poor boy!"

It was the same old home-coming, only Cousin
Jim hunched over a little more in the buggy as
Silas drove from the station through the shady
hedge of maples leading to the little farmhouse
enclosed among the apple trees at the present end.

During the short drive he said but little; and
when Silas asked him a question he hesitated,
faltered, and rubbed his eyes before replying.
When Old Gray turned down the lane where the
robins were singing and the squirrels chattering,
a trace of the old light came back to the old
bachelor's eyes and the faded, sunken cheeks
glowed a trifle.

"Silas," he murmured, laying his thin hand upon
the seat, "let me drive Old Gray home
through the lane."

The lines hung listlessly from his hands as the
old mare slowly walked along the familiar place
toward the house, where Mandy stood in the
doorway with her kindly face. Then when the
horse halted at the block, he said, handing over
the lines:

"I think I have been driving right into
heaven, Silas."

"Why, Cousin Jim, I am so glad to see you
again. It seems so like old times to see you and
Silas driving home through the lane." And the
good woman came forward with both hands out-
stretched. Her eyes grew moist when she saw
how feeble the old bachelor cousin was. She
and Silas had to almost lift him from the buggy,
and her strong arms supported the frail form as
he walked with dragging steps up the gravel
walk and into the cool, flower-scented parlor.
His eyes roved about the quiet place and he
sighed, "Heaven, heaven at last!"

"You lie right down on the couch, Cousin Jim.
I will take a nap while I get supper. I'll call
you in time to wash and freshen up. I'm going
to have some raised biscuits and honey—you all
like that."

The tired man laid his head back and mur-
mured: "Dear Mandy! I am so glad to get
back home again. I wish I were a bird, I wish
I were a bird, so tired and so—so happy to get
home—home!"

Mandy went out and closed the parlor door.
"This must be heaven—at last. It is so still,
so sweet, so nice. Tomorrow I will go down to
the mill dam; I will go to the old swimming hole
under the willows once more, where dear old Sil
and I used to swim. I will sit on the stoop in
the cool of the evening and—I will be at home
once more with the good and true and unselfish
ones."

And thus he murmured as he drifted into the
land of sweet dreams. At rest, finally, there
in the cool, flower-scented parlor of the little farm-
house, after from the noise and bustle of the city.
The bees buzzed among the lilacs, where the
humming-birds whirled about the apple blossoms,
brought against the blinds and the fragrant
petals fell upon the sleeper's face—but he did
not stir. He was dreaming, sweetly dreaming—
dreaming of heaven. He was dreaming of the
dear old days of boyhood, days free of care, days
filled with joy and delight and sweetness. Then
the good angel of the old man's dreams came
in a chariot of silver, and his eyelids were
touched as with a magic wand. He roved in
green pastures, where blue cloud-fleeced skies
were bent, and he wandered by crystal streams in the
cool shady woodlands where birds made glad the
fragrant breezes of the summer day of unending
bliss.

Oh! then—then, it was no longer a dream.
Oh! the glory of it all! It was no more a dream.
It was a blessed reality.

"Jim!"
There came no response from the old man on
the couch.

"Silas, come quick! All is not well with poor
Jim."
They approached the couch and looked down
upon the face. The first look had disappeared.
There was a smile instead. Cousin Jim was no
longer ill—he was at rest, peacefully at rest.
And all was well with him.

Doubt's Department.

THE KNITTING LESSON.

Grandmother knows how to stockings grow,
Ribbing and purling and heels and toes;
Never she's doubting our little Rose,
"Put in the needle."
"Throw over the thread,
Out with the needle, and off it goes!"
Grandmother's mouth gives a little twitch,
Watching so shyly the eager witch,
Ready to help at the smallest hitch.

"Put in the needle,
Throw over the thread,
Out with the needle, and there's the stitch!"
Grandmother sees in a misty dream,
Her eyes still fixed on the needle's gleam.
Patterned socks and a gurgling streamer
"Grandmother, we forgot the seam!"
"Bring the thread forward,
The needle this side,
Then over—off—and we've made the seam."

Grandmother knows how to stockings grow,
Ribbing and purling and heels and toes;
Never she's doubting our little Rose.
—Mary J. Jacques, in Number 58, Nicholas.

Princess Honeyuckle's Bird.

When the little Princess Honeyuckle first
came to live with her royal uncle and aunt in
their big palace, she was homesick and sad. She
did not like the court festivities and her heavy,
gold gowns; she did not like having her small,
royal kites and the courtiers and retainers,
whose duty was to wait upon her highness, and
she wept bitterly when she was obliged to ride
in the royal carriage on procession days.

But by and by she came to be used to these
things, and even to enjoy them. This was what
she was telling her little bird prisoner, who
against the gold bars of his cage and begged to
be set free:

"You won't be homesick awful long, dear
teeny, weeny, little bird," said consoling.
"You'll be homesick to me. I did it. I expected
I'd just die at first, but I kept getting curi-
ous, till I was all well again."

In reply the little bird only peeped miser-
ably, as it went on tearing and crumpling its
feathers against the bars. That troubled Prin-
cess Honeyuckle most of all. If he would only
stand still a while, she thought.

Just a few days ago the tiny prisoner had
been at home in the great elm yonder with his beau-
tiful orange throat. Now he called and called and
called for her. At last she came. She came
again and again, and brought him little worms,
which she would sit to wait upon her highness, and
she wept bitterly when she was obliged to ride
in the royal carriage on procession days.

One morning little Princess Honeyuckle sat
on her sunny window-seat studying her division
of fractions. She was so sleepy (dividing frac-
tions always made her sleepy, it seemed),
and with half-shut eyes she listened drowsily to
the mother oriole and her baby bird.

"Peep! Peep! Peep!" Why, no; gracious
me! That isn't what they are saying. They are
talking to me like other people. The princess
held her breath.

"Cheer-up, cheer-up, dear," sang the mother;
"things will clear-up, clear-up, dear."
The princess listened harder than ever, pushing
back a golden curl.

"Never mind, never mind," trilled on the
sweet voice, "somebody will be kind." Then the
mother kissed her baby goodby and flew off.
How strange that birds should kiss each other,
thought the little princess. But hadn't she seen
it with her own eyes? Hadn't she heard the
queer chirp "smack"?

From the garden below came the sound of the
court chamberlain's voice in cross surprise:
"Biddibridge," he called to the nurse, who
was flirting with the gardener, "don't you see
that Princess Honeyuckle is asleep up on the
window seat? She might fall out and break her
highness's neck!"

Then the little princess stirred in the sunlight,
and opened her big blue eyes. So she had fallen
asleep! Dear me! And the mother oriole hadn't
been at all, but was sitting there by the gold
cage talking. Only she wasn't talking in real
words.

"Che-pi, che-pi!" cried the tiny prisoner, still
beating its wings coaxingly. "Che-pi, che-pi!"
the mother answered, reassuringly. After all, it
did sound like "cheer up," thought the princess.
She rested her chin in her hand for a long time
and when the Biddibridge came hastily in to see
about her little charge, Princess Honeyuckle
told her that she was busy thinking and wanted
to be alone.

From the great elm yonder came the sweet
trilling song of the mother oriole, who had flown
back to her other babies in the tree.
"Somebody will be kind, never-mind, kind,
kind, kind"—oh, yes, that is what she sang.
The little princess reached up her royal
hand, and with a smile, softly opened the door
of the golden cage. "Somebody will be kind,"
with one glad, shrill little cry the baby pris-
oner shot through the clear, sunny air and
flew directly toward the great elm—New York
Tribune.

An Essay on Hens.

A boy who was required to write an essay on
hens presented the following: "Hens are curious
animals; they don't have no nose nor no teeth
nor no ears. They swallow their whistles whole
and chew it in their crops inside of me. The
outside of hens is generally put into pillers and
into feather dusters. The inside of a hen is
sometimes filled with marbles and shirt buttons
and such. A hen is very much smaller than a
good many other animals, but they'll dig up more
tomato plants than anything that ain't a hen.
Hens are very useful to lay eggs and plant
seedlings. Hens have got wings and can fly when
they get frightened. I cut off a hen's head with
a hatchet, and it frightened her to death."

The Lobster and the Eagle.

As an excuse for dragging a lobster story in
it can be at least said that much of the contention
between the French and the English over the
French shore fishing in Newfoundland hinges
upon the point as to whether or not a lobster is
a fish, since the French fishermen claim the right
to build lobster factories on the treaty coast in
virtue of the clause of the treaty authorizing
them to erect buildings for drying their fish.
The fisherman in this case was one of the white-
headed eagles popularly known in Newfoundland
as a grip. The story is told by Colonel Haggard,
with whom I visited Newfoundland a few years
ago in search of salmon. "John Stroud, one of
our guides, said, 'the eagle,' were sit-
ting on the rocks by the seashore watching the
grip pouring around in circles, when suddenly he
saw him dash down into a pool of water close by
us on the beach and reappear holding an enor-
mous lobster in his talons. He was an old lob-
ster with a huge claw, white, with barbed
teeth, but the eagle had clutched firmly around
the back, and at first we could see the huge
claw hanging helplessly down, the barnacles
shining white in the sunlight. Only for a second,
though. The ripples on the recently disturbed
pool had not yet died away, the large drops
of water had not ceased to fall upon its sur-
face from the soaring eagle's feathers and the
captive lobster alive, when the latter suddenly
awoke to the seriousness of the situation, and to
think that that apparently helpless creature was
to act, for he was a lobster of action. Up came
the great white barnacled claw and seized the
eagle around the neck. The grip had got the
fettering and beating of his wings, a melancholy
squeak issued from his choking throat and then,
tumbling and rolling head over heels in the
water in a confused mass, down came eagle and lob-
ster splash back into the pool. We rushed
forward, thinking that we could, perhaps, in

some way secure both combatants, as the splash-
ing of the conflict continued in the shallow
water. But we had hardly time to pick up a
rock to throw at the eagle, before the lob-
ster, feeling himself at home again, went to his
hold. Now, with his neck all torn and devoid of
feathers, away flew the bedraggled eagle to a
neighboring cliff, while, still brandishing his
enormous claw in defiance, the lobster remained
in the bottom of the pool. But the grip
will doubtless tell you, if you meet him, that the
lobster fishing in Newfoundland is very poor at
present, and that he is going to give it up, as the
game is hardly worth the candle."—Forest and Stream.

Notes and Queries.

TRANSPORTATION OF LIVE FISH.—"K. N. G." Acting upon the principle that fish live
with ease in any water if it is supplied with
oxygen, European exporters are beginning to
use metallic tubes to which oxygen generators
are affixed in such a manner as to feed the water
regularly with the gas, which escapes when the
reservoir surmounts that of the atmosphere. Re-
cently by this means forty thousand trout were
exported from Switzerland to England, Germany,
and Austria, of which number only four hundred
died.

OLD ENGLISHMEN.—"Veteran." It ap-
pears from the report of the surgeon-general of
the United States Army that the total number of
candidates examined for enlistment was 45,313,
and that of this number about two-thirds, or 30,
176, were accepted. This is a large proportion,
when the fact is taken into account that the
"standard" of excellence required is very high,
none but physically perfect men being accepted.
Of the 45,313, applicants for enlistment, 42,183
were white men and 3,130 were colored men. Of
the colored men, 27,750 were accepted, 588 of the
colored men, out of every one thousand men
men accepted 78.05, on the average, were born
in the United States; 64.78 in British territory;
41.25 in Germany and 8.79 in Sweden and Nor-
way. Of eighteen American Indians examined,
fourteen were enlisted as scouts. It is interest-
ing to note that during the year 1902 the Malays
were examined for enlistment as Philippine
scouts, and that of these all except twenty were
accepted, showing a surprisingly high standard
of physique among the Filipinos.

NATURE'S MEASUREMENTS.—"Festus." A Ger-
man astronomer, Herr Wirtz of Strasbourg,
has made between December, 1902 and March,
1903, fresh measurements of Neptune, the most
remote member of the solar system. He com-
putes that the diameter of the planet is about
3,400 miles, about four times that of the earth,
but that its density is to that of our globe as 1.5
to 5.53. In other words, while the earth is five
and a half times as heavy as a sphere of water of
the same dimensions, Neptune is only one and
a half times the density of water. The lightest of
the planets in Saturn, which would float like a
ball of cork in an ocean big enough to hold it.

AMBERGRIS.—"D." The principal use of
an amgris, which is a secretion of the sperm
whale, says Charles H. Stevenson, in a pam-
phlet entitled "The Oil, Fat and Wax," pub-
lished by the United States Commission of
Fish and Fisheries, was as a medicine, and as a
perf

The Horse.

Honesty in Horse Selling.

It is a well-remembered saying, originating from a man who had the most practical experience in the world, that, while you can fool some of the people all the time and all of the people some of the time, you cannot fool all of the people all of the time. It works just this way in the horse business, and the man who thinks that he can send a consignment of horses into a sale ring year after year and misrepresent them, or send in his horses to sale after sale and protect them by by-bidding, will eventually get fooled himself, instead of fooling the general public.

This extends farther than that, for the man who misrepresents the horses that he has for sale creates "one knooker" against his stock for every man he sells a bad one to. It is a well-accepted fact that a man forgets a good turn quickly but remembers a bad one "forever," and there is probably no business where this holds good any better than in the business of buying and selling horses. The fact that so few men remember the good turns that have been done to them is rather poor encouragement to a man to try and establish a reputation for honest dealing in horse selling, but nevertheless it will eventually prove a winner if the buyer can only be induced to believe that it is actually possible for a man who has a horse to sell to tell the truth.

It may take too long for a seller to establish this reputation, and he may get so nearly "broke" in the attempt that he will "not be so particular" after a while, at first only concealing minor matters, but eventually adopting the methods of the other class of horse sellers, and actually trying to stick every man that he sells a horse to, or else result in his quitting the business altogether. In the latter case a good man is lost to the business, while in the other instance another rogue is added to the game to still further hurt the reputation of the business of handling and selling horses, and after all it is more the buyers that are to blame than the sellers. It should be the duty of every man who buys a horse to never miss an opportunity to tell others the name of a man who has sold him a horse and represented the animal just as it was, and in doing this the buyer will do himself even more good than he actually does the other fellow, for he will help to keep the straight seller in the business, and will incidentally "knock" the business of the man who is ready and willing to cheat a man in a horse deal at any time.—Horse Breeder.

A horse may refuse to start just from "pure cussedness," or there may be some other cause which a skilled driver may find out. First of all look to the bit, see that it does not hurt the gums, inspect them. Then look to the shoulders under the collar, and feel if the animal flinches from pressure, for there may be injury there, even without the presence of a wound, or the collar may press on the windpipe. This would make a horse in harness balk. If no manifest reason for not starting can be discovered proceed as follows: While speaking to the animal, pass the hand down the front leg to the coronet, lift the hoof up pretty high, and then, with anything, as a stone, strike each nail in the shoe, with a final tap on the frog of the hoof, then say something to the horse as you suddenly let the foot drop to the ground, and the driver gathers up the reins sufficient for the animal to feel the bit. The horse's attention will have been diverted by what has been done, and he will often start off at once, if it has been a matter of ill-temper. This device has been rarely known to fail, if the horse feels that he is master of the load behind him.

To break a stable-kicker, a plan, often very successful, is to give him a sandbag to exercise upon. Fill a sack half full of sand and swing up to the ceiling with a rope, so that the sack will hang just where the heels of the horse will have good play upon it. Tie the horse in a stall with a good strong rope and let him kick. At the first kick the bag will swing away and return, giving the horse as good as he sent. For the next minute or so there will be a battle royal, but the sack will hold its own, returning all it received with interest.

Leave the sack behind him for a week or so and then remove it. If he ever tries to get into his old habits, give him another punch bag to exercise with.

From all the American tests, and those which have been made in Europe, it appears fair to say that there is no very marked advantage in grinding grain for healthy horses with good teeth.

Lettuce and Cucumber Diseases.

Some of the best work ever done for greenhouse farmers has come from the under glass experiments at Amherst, Mass., under charge of Dr. G. E. Stone. The success and popularity of steam heating or sterilizing greenhouse soil is in good measure owing to the station experiments. With permission of Secretary J. L. Ellsworth, the following illustrated descriptions are given of the most troublesome diseases of two leading indoor crops.

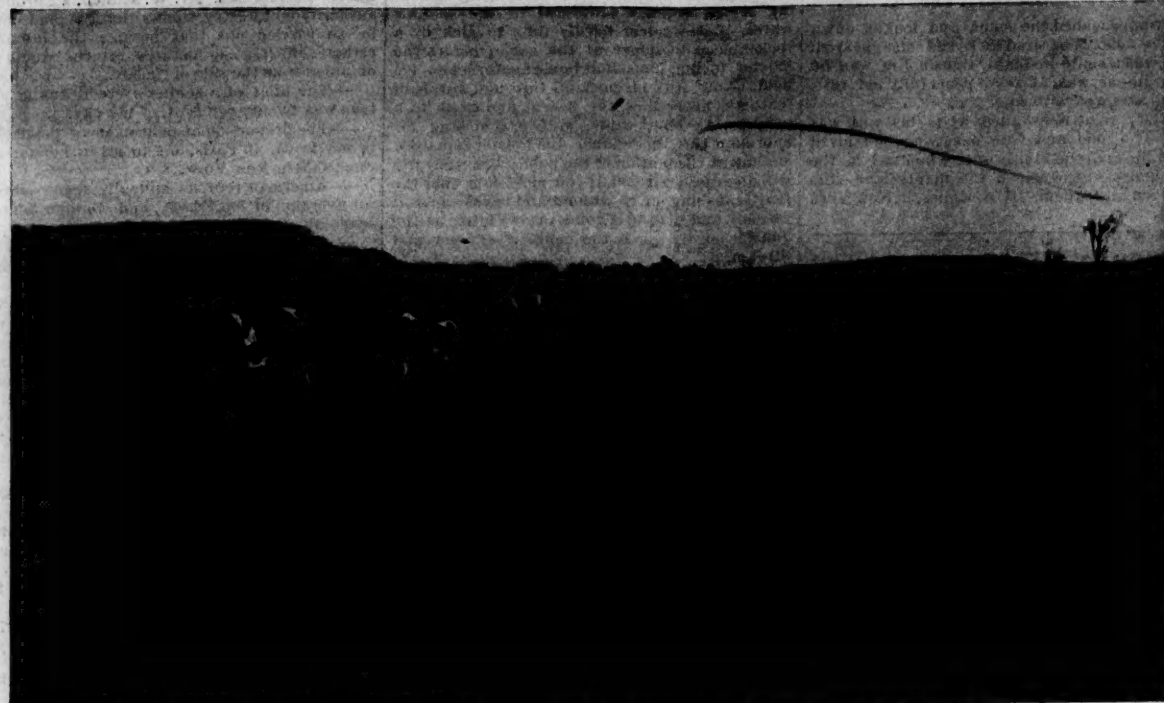
TOP BURN, OR TIP BURN.

The above trouble is not caused by any organism, but is due to a lack of proper conditions in the lettuce house. Top burn is merely a wilting of the young, tender leaf extremities, which causes them to dry up and turn brown or black. This greatly disfigures it, and injures to a considerable ex-



TOP BURN OF LETTUCE.

tent the sale of the produce (see Fig. 8). Amateurs and inexperienced growers are very likely to have top burn. It gives little or no concern, however, to expert handlers of lettuce crops. The whole matter is one dependent upon the absorption and giving off the water by the plant, together with the conditions which govern the formation of the texture of lettuce, namely, heat, light, etc. To obviate top burn, care must be taken not to allow high day temperatures during, or directly after cloudy days, and low night temperatures should be maintained during cloudy weather. Skilled lettuce growers know the texture of their plants, and what treatment they are capable of standing.



PASTURE SCENE ON THE PINES DAIRY FARM. HERD OF B. W. MCKEEN, OXFORD CO., ME. See descriptive article.

The temperature conditions are governed entirely by what they think the plant is capable of enduring. Where a rapid growth of lettuce takes place, in consequence of any form of stimulation, care should be taken to govern temperature conditions, especially those of night temperature. Lettuce plants, like all others, make most of their growth during the night, and the character or texture of that growth is dependent to a large extent upon temperature. High night temperature will cause rapid growth and a delicate texture, and lower temperature will give rise to less growth with a firmer texture.

LETTUCE DROP.

This constitutes the most destructive disease of lettuce, and is characterized by the plants wilting and dropping into an insignificant mass. This troublesome disease is caused by a sporeless soil fungus, which attacks the stem of the plant, and the only



LETTUCE PLANT AFFECTED WITH DROP.

effectual remedy is found in soil sterilization.

DOWNY MILDEW.

This mildew can be readily distinguished by the typical yellowish, angular spots on the leaves. It is likely to occur on greenhouse crops from August to November or December. If crops, however, are set in the



CUCUMBER DOWNY MILDEW, Showing the characteristic angular spots.

house as late as October, they are apt to be free from mildew during the rest of the year. Keeping the moisture down in the house, together with ventilation and light, is the best prevention of mildew. We have kept this mildew entirely in check on more than one occasion by simply keeping the moisture down in the house and supplying the plants with sufficient light and air. Since mildew infection comes largely during the summer, one of the best ways to obviate it is to not set the plants until about October. The mildew can also be prevented by spraying with bordeaux, as has been shown by experiments. In short, this is the only remedy that can be applied to outdoor crops of cucumbers.

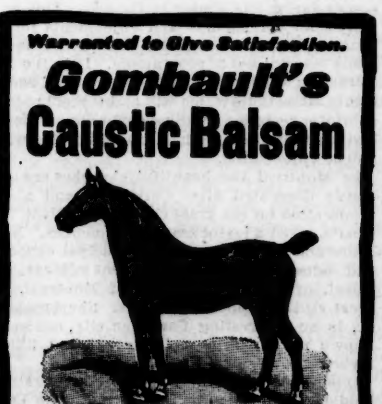
TIMBER ROT.

Timber rot is caused by the same fungus that produces lettuce drop. On the cucumber it causes canker-like growths on the



TIMBER ROT, CUCUMBER.

stem, such growths being associated with black pustules about one-sixteenth or one-



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the length in diameter. It does not cause excessive damage to cucumbers, as a rule, and the fungus can be entirely eliminated by sterilizing the soil.

Wild Animals in Winter.

The month has come when those of earth's creatures which know not the use of fire must make their preparations for winter if they would survive its hardships. They are confronted with problems which, if they are not already solved, must be attended to at once. In most cases their problems are those of food and shelter, sometimes one, sometimes both. Of course the question of protection also comes up, and although this is always before them in some cases at least, it requires a special answer in winter. For this reason the fur of the Canadian hare, the ermine and some other mammals, and the plumage of the white-tailed ptarmigan, change from the brown color of summer to pure white, making them practically invisible in the snow. Then in order that they may travel more easily over snow-covered ground, the feet of many animals are subject to peculiar modification at this season.

As we all know, horny fringes grow upon the toes of grouse, the hoofs of certain deer become broader, and the feet of rabbits become wide, hairy pads. But these latter advantages, derived from change of color or growth peculiar to the season, are attained without any effort on the part of the creatures themselves. In order to obtain food and shelter for the winter, however, some animals are obliged to make active preparation.

Perhaps the best-known example of such preparation is that of the beavers, which first make a pond by damming a stream with trees, brush, stones and mud, and then, in the pond thus made, erect stanch huts whose roofs are well above the water, and whose doorways are well below it. Here they spend the winter, swimming out under the ice in search of aquatic roots, or the bark of trees and bushes growing near the water, or, when other food fails them, eating the bark of saplings carried to the bottom of the pond and stored away near their huts in the autumn. Unfortunately, few of us ever get a chance to see either of these animals or their works, for not only have the beavers been almost exterminated, but those which still survive often spend their winters in holes in the banks of streams, afraid to make a dam or rear a hut lest it be the signal for a massacre.

We can, however, get some idea of the beaver's natural preparation for winter by watching the muskrats, which have somewhat similar habits. The muskrat makes no dam, but chooses for the site of his winter home a pond already in existence. Here he builds a hut or lodge on the same general plan as the beaver's, but much smaller. The material used in its construction is usually that which is easiest to obtain—sticks, leaves, moss, grass and the stems of burdocks, being among the materials I have seen used by this animal. As far as I know, muskrats lay up no food for the winter, but depend entirely upon what they can pick up from day to day. Like the beavers, they are partial to the roots of aquatic plants, and fragments of these are often seen beneath the ice, where they have floated from the spot where some rat has been at work. Muskrats also go out into the fields through holes in the ice to eat any winter supplies they may find under the trees, or to glean corn or other grain which may have been left by the farmers. They occupy their well-built houses chiefly in the daytime.

It would probably be difficult to mention a more provident animal than the common chipmunk, which for months now has been carrying into his long, winding, underground tunnel a store of nuts, grains and seeds of different kinds, which would probably be a famine next year. These creatures are not nearly so dependent on their winter stores as the chipmunk is, for red and gray squirrels are abroad more or less all winter, while the little hawkbee sticks to his den from fall until spring.

The flying squirrels, too, sleep away the winter, but their slumber is less sound than that of the woodchuck. They do not wake up to eat, so far as I know, but if, on a warm day in winter, one taps gently on the hollow tree where they have their nest, they will come out in one, two, three or four, and sail away through the woods.—Ernest Harold Baynes, in N. Y. Evening Post.

Notes from Washington, D. C.
"Meat on the Farm" is the title of Farmers' Bulletin 183, written by Andrew Boss of the University of Minnesota for publication by the Bureau of Animal Industry. Mr. Boss is said to be a high authority on the subject. The bulletin contains a good hour's or more reading, but appears interesting and instructive throughout, as well to the farmer who has a couple of shovels as to the big grower. In the selection of animals for meat, it is stated that health should be given first consideration. Fat animals are not always healthy. Nor can first-class meat be ob-

tained from animals poor in flesh. "Never kill an animal that is losing flesh" is the maxim followed by butchers. With falling flesh the muscle fibres are shrinking in volume and contain correspondingly less water, so that the meat is tough and dry. A better product will be obtained from an animal in medium flesh, but gaining rapidly, than from the over-fat animal at a standstill.

Fine bones, soft, luxuriant hair and mellow flesh are always desirable in an animal to be used for meat, as they are indications of small waste and good quality of meat.

The flesh of very young animals frequently lacks flavor and is watery. An old animal properly fattened and in good health would be preferable to a young one in poor condition.

The best meat will be obtained from cattle from thirty to forty months old.

A calf should not be used for veal under six weeks of age; in best about ten weeks old and raised on the cow.

Hogs may be used at any age after six weeks, but the most profitable age is eight to twelve months.

Sheep may be used from two to three months old; they will be at their best before two years old, usually at eight to twelve months.

In the preparation of animals for slaughter it is important that they should be kept off feed for at least twenty-four hours. Otherwise the system is gorged, and it is impossible to thoroughly drain the blood from the animal, resulting in a reddish colored, unattractive carcass. Food in the stomach also affects the carcass, where the dressing is slow. Water, however, should be given freely up to the time of slaughter.

The treatment of animals previous to slaughter is an important thing, especially that they be not excited. Excitement prevents proper drainage of blood vessels, and if extreme will cause souring of the meat very soon after dressing. Never kill an animal immediately after a long drive or a run. Bruises should, of course, be avoided.

Mr. Boss goes into specific detailed description and instruction regarding the killing and dressing of the various farm animals, including the tools and apparatus necessary. Cattle, hogs, sheep and poultry are all treated of and the handling of the hides and pelts. Then comes a description of the cutting up of the meats, and again the keeping of fresh meat such as cold storage, freezing, snow packing, and partial cooking. Under "Curing Meats" he discusses the various preservatives in common use, wet and dry curing, corning, sugarcuring, pickling pigs' feet, making sausage, hamburger steak, bologna sausage, etc. The smoke house is likewise described.

"Do away with the free-seed farce" is the subject of a resolution introduced Nov. 27 by Representative Sheppard from Texas. The resolution proposes to apply the big Congressional appropriations now expended for common seeds in a manner more beneficial to the interests of agriculture. It requests the Secretary of Agriculture to submit to Congress plans restoring the original purpose of the seed distributions which contemplate the introduction of new varieties in various localities. The resolution meets with the unqualified approval of many members of both the House and Senate who, while they have usually voted for these seed distribution appropriations, have viewed with disgust the squandering of public money for such a useless purpose. It will be interesting to see whether Congress at this session will use common sense in voting for the interests of farmer constituents or whether the usual appropriation will be rushed through, giving each congressman thirty or forty mail sacks full of little seed packets to scatter around over his district.

Raising geese for market and the best breeds and methods have been summarized by the Department of Agriculture. The statement is made that geese are probably the hardest of all domestic fowl, requiring less attention than cows or hens, and little or no outlay for buildings. The old geese do well in all weathers, oftentimes disdaining even a shed, and they do well on wet or marshy land, where hens and turkeys will not thrive. They, however, have their peculiarities. If they are changed often from one place to another, they are not apt to breed well. They breed better the third season they are in a locality. The Embden-White China are the easiest to pick, and are white when dressed. The Embden-African are also easy to pick and larger than the White China. These two breeds, crossed, produce vigorous, quick growing geese. The Embden-Toulouse is regarded as the most satisfactory cross for large geese for Christmas and New Year trade.

Old geese lay a greater number of larger eggs and are more reliable than young birds and lay more fertile eggs. Breeding geese should have considerable exercise and be kept moderately thin in flesh through the winter by light feeding and a free range, or by facilities for swimming. The Toulouse geese lay well, but often do not sit. The Embden geese lay fewer eggs, but make better mothers. Geese are graziers and too much grain is not good for them. To insure fertile eggs they should have an abundance of green food and constant access to drinking water; also, if possible, to a pond.

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